



FALL 2019

#### INSIDE THIS ISSUE:

Program Announces FY20 “New Start” Projects . . .	3
FY20 Needs Solicitation Process Completed . . . . .	4
How to Submit a Pre-proposal . . . . .	5

# NESDI*News*

## *Highlights & Happenings*

### WHO WE ARE

The NESDI program is the Navy’s environmental research and development demonstration and validation (6.4) program, sponsored by the Chief of Naval Operations Energy and Environmental Readiness Division (OPNAV N45) and managed by the Naval Facilities Engineering Command (NAVFAC) from the Engineering and Expeditionary Warfare Center (EXWC) in Port Hueneme, CA. The mission of the program is to provide solutions by demonstrating, validating and integrating innovative technologies, processes and materials and by filling knowledge gaps to minimize operational environmental risks, constraints and costs while ensuring Navy readiness and lethality.



**The NESDI Program:**  
**Integrating Green Technologies Into the Fleet**



FALL 2019

## From the Program Manager's Desk



*Ken Kaempffe*

Welcome to the fall 2019 issue of *NESDI News: Highlights & Happenings*—part of our ongoing effort to keep you informed about the Navy Environmental Sustainability Development to Integration (NESDI) program.

This quarterly update provides you with the latest information about program operations, significant accomplishments and future focus areas for the NESDI program. We hope you will find these insights useful and that they encourage you to participate (or increase your involvement) in the program over the coming months.

With this issue of quarterly newsletter, I'm announcing the departure of one of our long-standing TDWG members—Barbara Sugiyama. Barb has been a long-time supporter of the NESDI program as both a Principal Investigator and then invaluable member of our management team. She has just recently accepted a position as the Resources Division Director (EV4) at NAVFAC Far East in Yokosuka, Japan and will be departing for Japan in December. Barbara will be greatly missed for her technical insights

as well as the skills she provided to help resolve the various challenges facing the NESDI program during her tenure with the program. Please join me in wishing Barbara “calm seas and following winds.”

Also, in this issue of *NESDI News*, we are announcing the launch of 15 “new start” projects as well as the 18 needs that we compiled during our solicitation for FY20. These needs were reviewed and approval by the various subject matter experts at our resource sponsor organization—OPNAV N45.

Finally, we also provide you with guidance on how to submit a proposal to address our priority FY20 needs.

Ken Kaempffe  
[ken.kaempffe@navy.mil](mailto:ken.kaempffe@navy.mil)



FALL 2019

## Program Announces FY20 “New Start” Projects

With the onset of FY20, the NESDI program launched 15 new projects including two stormwater-related efforts—one project will attempt to successfully demonstrate a handheld technology that identifies and quantifies sources of copper and zinc in stormwater runoff while a second project will evaluate the efficacy of a novel in-pipe treatment system to assist with stormwater permit compliance. Other “new start” projects include an effort to develop a method to speed vapor intrusion investigations through the on-site and real-time analysis of air and soil gas samples as well as an effort to validate the field application of activated carbon for the in-situ sequestration of per- and polyfluoroalkyl substances. A complete list of these and all other “new start” projects is provided in the table below.

No.	Project No.	Title	Principal Investigator	Performing Agency
1.	568	Evaluation of Various Real-Time Monitors to Accelerate On-Site Analysis for Vapor Intrusion	Travis Lewis	EXWC
2.	569	Field Demonstration of Colloidal Activated Carbon for In-situ Sequestration of Per- and Polyfluoroalkyl Substances	Tony Danko	EXWC
3.	570	Improve Cost Effectiveness of Groundwater Monitoring with Long Duration Time-Integrated Groundwater Samplers	Travis Lewis	EXWC
4.	571	Innovative Activated Carbon Filters to Address Vapor Intrusion within Commercial/Industrial Buildings	Travis Lewis	EXWC
5.	572	Flexible Under Pier Sediment Assessment	Jessica Carilli	NIWC
6.	573	In-Well Headspace Samplers for Long-Term Groundwater Chlorinated Hydrocarbon Monitoring	Tom Boyd	NRL
7.	574	Developing Lines of Evidence to Support Nutrient Compliance	Eric Winchell	NIWC
8.	575	Contaminant Monitoring and Mapping for Informing Stormwater Best Management Practices	Patrick Sims	NIWC
9.	576	In-Pipe Storm Water BMP Treatment System	Brandon Swope	NIWC
10.	577	Demonstrating the Use of a Novel, Hybrid Polyelectrolyte/Hydrophilic Polymer for In-situ PFAS Treatment Applications	Jovan Popovic	EXWC
11.	578	Mesocosm Field Testing of In-situ PFAS Treatment Trains	Nicholas Hayman	NIWC
12.	579	In-situ Biodegradation of 1,4-Dioxane and Chlorinated Solvent Mixtures in Dilute Plumes	Tony Danko	EXWC
13.	580	Development and Implementation of Methods to Reduce Sealant Waste in Fleet/Depot Level Operations	Alan Grieve	NAWCAD – PAX
14.	581	Assessment of Cadmium Alternatives for Connector Applications	Joseph Marchica	NAWCAD – Lakehurst
15.	582	Sensor Interface and Infrastructure for Monitoring	Lewis Hsu	NIWC



FALL 2019

## FY20 Needs Solicitation Process Completed

The program's needs solicitation for FY20 resulted is now complete. After receiving approval of the highest priority needs compiled during that solicitation from our resource sponsor (OPNAV N45), the program is seeking proposals for the 18 needs listed in the table below.

No.	Need	Title	Submitter
1.	N-1307-20	Low-VOC, non-HAP Rapid Cure Aerospace Primer	Jack Benfer (NAVAIR)
2.	N-1308-20	Reducing Regulatory Requirements When Conducting Pier Operations	Alfred Dumauual (NAVFAC)
3.	N-1310-20	Rapid Pathogen Detection in Drinking Water	Len Sinfield (NAVFAC)
4.	N-1311-20	Event-Based Sediment Deposition Sampler	Jessica Palmer (NAVFAC)
5.	N-1314-20	Opportunity Assessment for Stormwater BMPs at Navy Shipyards	Brook Zeller (NAVSEA)
6.	N-1319-20	Demonstration to Determine and Evaluate the Effect of Radiological Sources in Sediment on Marine Biota	Melanie Kito (NAVFAC)
7.	N-1321-20	Technologies that Sequester Comingled Contaminants in Sediment Including Heavy Metals and Organics	Jason Speicher (NAVFAC)
8.	N-1325-20	Development and Implementation of Metal Removal Technologies that Achieves Water Body Concentrations at/below Permitted Compliance Levels	Trevor Richardson (NAVSEA)
9.	N-1326-20	Electromagnetic Interference Shielding Tape (EMIST)	Jacob Deeb (NAVAIR)
10.	N-1327-20	Rapidly Curable Sealants	Jacob Deeb (NAVAIR)
11.	N-1328-20	Rapid, Sensitive Screening Method for PFAS in Soil	Malcom Gander (NAVFAC)
12.	N-1329-20	Development of an Integrated Analytical Approach to Transition from Active to Passive Treatments at Munition Constituent's Contaminated Sites	Malcom Gander (NAVFAC)
13.	N-1332-20	Aircraft Paint Removal Alternatives to Plastic Media Blast	Ray Paulson (NAVAIR)
14.	N-1333-20	Hexavalent Chromium-Free Conversion Coating for Anodize Coating Repairs and Touch Up Conversion Coating Application	Jacob Deeb (NAVAIR)
15.	N-1334-20	Rapid Monitoring of Contaminant Concentrations in Drydock Effluent	Edward Drielak (NAVSEA)
16.	N-1335-20	Rapid PFAS/PFOA Detection and Treatment of Oily Wastewater from Ships (D-TOWS)	CDR Antonio P. Matos (CNIC)
17.	N-1336-20	Mitigation of Blast Effects from Underwater Blow-In-Place	Karla Harre (NAVFAC)
18.	N-1337-20	Identification and Measurement of Groundwater Seeps Emerging into Surface Water	Karla Harre (NAVFAC)



FALL 2019

## How to Submit a Pre-proposal

Now that our priority needs for FY20 are set, we will turn our attention to the collection of pre-proposals to address those needs. The purpose of the pre-proposal is to ensure that the proposed project adequately addresses the requirements outlined in the need. We concentrate on technologies that are sufficiently mature for demonstration and validation and supports the overall mission readiness of the Navy. Pre-proposals should address the following requirements:

- Be approximately two pages in length.
- Clearly explain the proposed project (objectives and how they will address the need and environmental constraint(s) to be resolved.

- Quantify and qualify the technical criteria for a successful project.
- Include the basic strategy for successfully integrating the solution into Navy operations.
- Identify the authorization stakeholders related to the proposed effort.
- Accurately describe the technical maturity level or Technology Readiness Level of the proposed technology.

All pre-proposals are collected through the program's website. A Common Access Card (CAC) is required to access the site and submissions must be from Navy personnel. The website's pre-proposal page (<https://epl.navfac.navy.mil/NESDI/PreProposals.aspx>) provides guidance for the submission process including links to:

- A reference guide
- The evaluation criteria used
- The elements of a pre-proposal
- The submission form

Once you have completed all of the entries on the website's submission form, hit "Submit" at the bottom of the page. Your pre-proposal will then be sent to the program's management team (the Technology Development Working Group (TDWG)) for further consideration. You have until 5 December 2019 to submit your pre-proposal.

*(continued on the next page)*

**OPNAV N45**  
NAVY ENVIRONMENTAL SUSTAINABILITY DEVELOPMENT TO INTEGRATION PROGRAM WEB SITE

HOME PROGRAM DETAILS NEEDS PRE-PROPOSALS PROJECTS NESDI NEWS LOGIN

Pre-proposal Submission Form [Entry Descriptions](#)

Your Contact Information (all fields required)

Name  Phone  -  -  x   
Command  E-mail   
Activity

Pre-proposal Description and Costs (all entries required)

Title (150 Characters Max)

Select The Need Being Addressed [View Selected Need](#)  
N-1302-19: Update Environmental Monitoring Equipment for Regulatory Compliance  
N-1299-19: Study Temporary Cooling Water Total Recoverable Copper Levels During Dry Docking Availabilities  
N-1290-19: In-situ Biodegradation of 1,4-Dioxane and Chlorinated Solvent Mixtures in Dilute Plumes  
N-1288-19: Validate Adsorptive Amendments for In Situ Treatment of PFAS

Problem Statement (50 Word Limit)

Technical Description and Approach (500 Word Limit) [Expand](#)

Cost Estimates By Year (NESDI and Anticipated Leveraged Funding) [Add FY Cost](#)  
Total Cost (\$K): 0 (NESDI: 0, Leveraged: 0)

Technology Maturity (100 Word Limit)

**You have until 5 December 2019 to submit your pre-proposal.**





FALL 2019

## How to Submit a Pre-proposal (continued)

Any other questions you may have about submitting a pre-proposal should be directed to your TDWG representative or the NESDI program manager, Ken Kaempffe, at 805-982-4893 or [ken.kaempffe@navy.mil](mailto:ken.kaempffe@navy.mil). If your question pertains to the function of our website, contact our webmaster Eric Rasmussen at 732-323-7481 or [eric.rasmussen@navy.mil](mailto:eric.rasmussen@navy.mil).

Once all pre-proposals have been collected, we will review and rank them using established criteria including how the proposed effort addresses the need, how executable the project is, if the proposed effort is ready for demonstration and validation and how feasible it

will be to integrate the solution into ongoing Fleet operations. This is followed by a final evaluation that determines which pre-proposals will proceed to full proposal development.

Full proposals are requested for those pre-proposals that do the best job of meeting the evaluation criteria and addressing the explicit requirements as stated in the targeted need.

The call for full proposals will run from 14 January until 12 March 2020. (Full proposals are solicited by invitation only.) Successful proposals will result in new projects beginning in FY21 and beyond.

## Dates & Locations Set for 2020 Program IPRs

The program will hold three IPRs over the course of fiscal year 2020. The dates and locations for those IPRs are set, so mark your calendars accordingly.

What	When	Where
West Coast IPR	23-27 March 2020	Naval Facilities Engineering and Expeditionary Warfare Center (Port Hueneme, CA)
East Coast IPR	4-8 May 2020	Fleet Readiness Center Southeast (Jacksonville, FL)
West Coast IPR	8-12 June 2020	Naval Information Warfare Center (San Diego, CA)

Information about our FY20 IPRs will be provided in future issues of *NESDI News*. An entire program schedule for the next year is provided in the “Program Schedule” section in this issue of the program’s newsletter.



FALL 2019

## Program Schedule

Throughout the remainder of the fall and into the early winter, the program will concentrate its efforts on collecting and evaluating the proposals received via our FY20 solicitation. A complete program schedule for the next twelve months is provided below.

What	When
Pre-proposals DUE	5 December 2019
Make Pre-proposals Assignments to FWGs	13 December 2019
TDWG & FWG Comments on Pre-proposals DUE	6 January 2020
Evaluate Pre-proposals	6-10 January 2020
Conduct OPNAV N45 Programmatic Review	15 January 2020
Request Full Proposals	14 January 2020
Full Proposals DUE	12 March 2020
Conduct FY20 In-Progress Review	23-27 March 2020 (Port Hueneme, CA)
Screen Full Proposals	30 March - 3 April 2020
Conduct FY20 In-Progress Review	4-8 May 2020 (Jacksonville, FL)
FWG & TDWG Comments on Full Proposals DUE	1 May 2020
Principal Investigator Answers to Full Proposal Screening Questions DUE	22 May 2020
Announce FY21 Needs Solicitation	1 June 2020
Complete Evaluation of Full Proposals	4 June 2020
Obtain Sponsor Review & Approval of Full Proposals	5-25 June 2020
Conduct FY20 In-Progress Review	8-12 June 2020 (San Diego, CA)
Announce FY21 New Starts	28 July 2020
Close FY21 Needs Solicitation	4 August 2020
Screen FY21 Needs	10-14 August 2020
Evaluate & Rank Needs	14 -18 September 2020
Obtain Sponsor Review & Approval of Needs	21 September - 14 October 2020
Request Pre-proposals	14 October 2020
Quarterly Status Reports Due	6 January 2020 6 April 2020 6 July 2020 5 October 2020



Check out our website at  
<https://epl.navfac.navy.mil/nesdi/Schedule.aspx>  
 for the latest version of our program schedule.



FALL 2019

# NESDI News

## Highlights & Happenings

### GETTING ON OUR MAILING LIST

If you're not already on our mailing list and want to subscribe to *NESDI News*, please send your email address to Lorraine Wass at [ljwass@outlook.com](mailto:ljwass@outlook.com).

### CONTACT YOUR TDWG MEMBER

For more information about the operation of the NESDI program, contact Ken Kaempffe, the NESDI program manager, or members of the TDWG.

**Kaempffe, Ken (Chair)**  
NAVFAC  
805-982-4893  
[ken.kaempffe@navy.mil](mailto:ken.kaempffe@navy.mil)

**Henning, Jeff**  
NAVSUP  
717-605-2861  
[jeffrey.a.henning@navy.mil](mailto:jeffrey.a.henning@navy.mil)

**Rasmussen, Eric**  
NAVAIR  
732-323-7481  
[eric.rasmussen@navy.mil](mailto:eric.rasmussen@navy.mil)

**Bixler, Christy**  
NAVFAC/CNIC  
202-685-9313  
[christy.bixler@navy.mil](mailto:christy.bixler@navy.mil)

**Hertel, Bill**  
NAVSEA  
301-227-5259  
[william.hertel@navy.mil](mailto:william.hertel@navy.mil)

**Webber, Cindy**  
NAVAIR  
760-939-2060  
[cynthia.webber@navy.mil](mailto:cynthia.webber@navy.mil)

**Earley, Pat**  
NIWC  
619-553-2768  
[earl@spawar.navy.mil](mailto:earl@spawar.navy.mil)

**Kopack, David**  
NAVSEA  
202-781-3247  
[david.kopack@navy.mil](mailto:david.kopack@navy.mil)

**Youngers, Luzmarie**  
NAVAIR  
904-790-6382  
[luzmarie.youngers@navy.mil](mailto:luzmarie.youngers@navy.mil)

**Harre, Karla**  
NAVFAC  
805-982-2636  
[karla.harre@navy.mil](mailto:karla.harre@navy.mil)

**McCaffrey, Bruce**  
Consultant  
773-376-6200  
[brucemccaffrey@sbcglobal.net](mailto:brucemccaffrey@sbcglobal.net)

### IN THE NEXT ISSUE OF *NESDI News*

There is a lot more information coming your way in the next issue of *NESDI News: Highlights & Happenings*. In our winter 2020 issue, we will provide you with updates on the proposals that were submitted in response to the needs collected via our most recent solicitation.

